

Directive

9180.40 8-8-05

PESTICIDE RESIDUE TESTING FOR GRAIN

1. PURPOSE

This directive specifies the procedures for obtaining pesticide residue testing services for grain under the U.S. Grain Standards Act (USGSA).

2. REPLACEMENT HIGHLIGHTS

This directive supersedes FGIS Program Directive 9180.40, Pesticide Residue Testing for Grain, dated 5-1-97. This directive is updated to reflect changes to how quantitative results below the detection limit are certified, and what routine compounds are available for this testing service.

3. PROCEDURES

The Federal Grain Inspection Service (FGIS) provides pesticide residue testing in grain upon request. This service was established on October 19, 1994, as a Federal Register final rule (59 FR 52655) as official criteria under the USGSA.

- a. Testing Location. Pesticide residue testing is performed at the USDA, GIPSA, FGIS, Technical Services Division (TSD), Analytical, Reference, and Testing Services (ARTS), Technical Center, Kansas City, Missouri. The service is provided using gas chromatography/mass spectrometry.
- b. Compounds Tested. FGIS tests for the following residue compounds:
 - (1) Routine Compounds. See attachment.
 - (2) Special Compounds. Special compounds include other compounds not listed on the attachment as "routine," such as ethylene dibromide, carbon tetrachloride, and methyl bromide. Contact the FGIS testing laboratory to determine the ability to test for special compounds.

- c. Types of Services. There are three types of pesticide residue testing services available:
- (1) Official Sample-Lot Service. Analysis based on an official sample obtained and analyzed by official personnel.
 - (2) Submitted Sample Service. Analysis based on a sample submitted by the applicant for service.
 - (3) Warehouse Sample-Lot Inspection Service. Analysis based on an official sample obtained by a licensed warehouse sampler and analyzed by official personnel.
- d. Basis of Determination. All grains are tested on the basis of the sample as a whole. Shipplots and combined lots are tested on a composite sample. Services are available on a subplot basis upon request.

4. RESPONSIBILITIES

- a. Applicant for Service. The applicant may request the optional testing service through the local service point or mail the sample directly to the FGIS Technical Center. The request must include the applicant's name, address, and telephone number; the desired test(s); and whether qualitative or quantitative certification is desired with contract specification level, if applicable.
- b. Local Service Point. The local service point shall forward the sample to TSD with the required information, report the results, issue the certificate, and bill the applicant.
- c. TSD. TSD is responsible for performing the requested test, maintaining a file sample, and reporting the results to the local service point or applicant in a timely manner. For testing services requested directly to TSD by the applicant, TSD will issue the certificate and bill the applicant for the services. For testing services requested by an agency, TSD will bill the agency.

5. SAMPLING

- a. Sampling Preparation. From a representative sample, use a Boerner divider to obtain a minimum 500-gram sample and place in an airtight container. Retain at least a 500-gram portion in an airtight container (e.g., double-sealed plastic bag) in case the sample is lost and must be resubmitted. Work samples may be used once they have served their intended purpose.
- b. Sample Forwarding. Place the container inside a canvas bag and include a copy of the certificate; a copy of the request for service, if available; and the following information:
 - (1) Type of pesticide testing requested (routine/special),
 - (2) All information required in 4(a), and
 - (3) Date mailed.

Providing all necessary information will ensure receiving timely results. Write "RES" on the shipping label in large, bold letters. If the applicant arranges for sample delivery, affix a blank tag to the sealed sample marked accordingly with desired test before surrendering it to the applicant.

Mail all samples to:

Technical Services Division, ARTS
USDA, GIPSA, FGIS Technical Center
10383 North Ambassador Drive
Kansas City, Missouri 64153-1394

6. REVIEW INSPECTIONS

- a. Sections 800.125 and 800.135 of the regulations permit a review inspection on either official grade/factors or official criteria. When requested, a review inspection for official grade/factors and official criteria may be handled separately even though both sets of results are reported on the same certificate.
- b. Applicants may request either qualitative or quantitative review analysis unless the original or a review analysis was quantitative. Then, only a quantitative analysis is available. All review inspection results replace previous results.

7. CERTIFICATION

- a. Residue results may be issued as a laboratory report, on a separate certificate, or on the certificate for grade (applicant's option). When residues are certified for export certificates, date the certificate the date loading was completed. Date domestic certificates the date pesticide residue testing results are received. See the Grain Inspection Handbook, Book IV, Chapter 3, Certificates, for further certification instructions.
- b. Certify the results using one of the following statements:
 - (1) Qualitative: "(Name of pesticide) residue less than (record contract specification)."
 - (2) Quantitative: "(Name of pesticide) residue (record actual results) ppm."
 - (3) If the result is below the detection level, certify as, "Less than (record actual detection level) ppm" (e.g. 0.05 ppm).
 - (4) These statements are provided as a guide and may be modified as needed.

8. FEES

Fees are shown in section 800.71(a) of the regulations under the USGSA, as amended.

Testing fees are applicable to any level of service (original inspection, review inspection, appeal inspection, or Board appeal inspection) and do not include a sampling service fee which, if applicable, will be assessed separately in accordance with the applicable fee schedules.

/s/ David Orr

David Orr, Director
Field Management Division

Attachment

PESTICIDE ANALYSIS SERVICE - Routine Compounds

X = Availability of testing services.

PESTICIDE	Detection Limits (PPM)	Barley	Corn	Soybeans	Wheat
Alachlor	.02		X	X	
Aldrin	.05	X	X	X	X
Alpha-BHC	.02	X	X	X	X
Atrazine	.02		X	X	
Azinphos-methyl	.02	X	X	X	X
Beta-BHC	.02	X	X	X	X
Carbaryl	.02		X	X	
Carbofuran	.02	X	X	X	X
Chlorothalonil	.10	X	X	X	X
Chlorpyrifos	.02	X	X	X	X
Chlorpyrifos-methyl	.02	X	X	X	X
Cyanazine	.05		X	X	
Delta-BHC	.02	X	X	X	X
Diazinon	.02		X	X	
Diclofop-methyl	.02	X	X	X	X
Dieldrin	.02	X	X	X	X
Dimethoate	.04	X	X	X	X
Endosulfan	.02	X	X	X	X
Endrin	.02	X	X	X	X
Esfenvalerate	.02	X			
Fenitrothion	.02	X	X	X	X
Fenthion	.02	X	X	X	X
Fenvalerate-alpha	.02		X	X	X
Fenvalerate-beta	.02		X	X	X
Folpet	.05	X	X	X	X
Fonofos	.05		X	X	
Lindane	.02	X	X	X	X
Malathion	.02	X	X	X	X
Methidathion	.02	X	X	X	X
Methoxychlor	.02	X	X	X	X
Metolachlor	.02		X	X	
P,P'-DDD	.02	X	X	X	X
P,P'-DDE	.02	X	X	X	X
P,P'-DDT	.02	X	X	X	X
Parathion	.02	X	X	X	X
Parathion-methyl	.02	X	X	X	X
Phorate	.05	X	X	X	X
Pirimiphos-methyl	.02	X	X	X	X
Propachlor	.02		X	X	
Terbufos	.05		X	X	
Triallate	.02	X	X	X	X
Trifluralin	.05	X	X	X	X